LEUTL DI WATER BRIDGE
SEQUENCE OF OPERATIONS

Process Water Control

Primary process water will be provided through the ICS system in building 450. Local chilled process water bridge will provide a secondary loop for the LEUTL area. The building operating engineer will enable the individual system by setting binary data point, "SYS_ENBL", ON from their appropriate ICS network terminal. The digital control panel, EN-12001 will open process water isolation valve, V-5 and place the three way mixing valve under control and start the secondary circulating pump, PLEU-1. Three way process water control valve, V-6 will be modulated by digital control panel, EN-12001 to maintain a process water temperature setpoint of 75 Deg F. (adjustable at an ICS terminal)

The digital controller panel will provide the start/stop command for the process water circulating pump, PLEU-1, and will monitor its status through feedback device, differential pressure switch, PS-2. An alarm will be issued to the ICS network in the event of a failure.

The status of the secondary filter system will be monitored by differential pressure switch, PS-1. In the event that the differential pressure exceeds 20 PSI, and alarm, 'Dirty Filter Condition' will be sent to the ICS network.

High Process Water Supply Temperature Event

The digital controller will monitor the process water supply temperature through temperature element, TE-1. In the event that the supply water temperature exceeds 80 Deg F (adjustable), an alarm will be issued to the ICS network "High Process Water Supply Temp."

Process Water Bypass Control

As the two way valve to the APS equipment, V-4, is operated, the flow demand to the system changes. Differential pressure transmitter, DPT-1 will read the differential pressure across the supply and return water lines. The digital controller will modulate the process water bypass valve through its proportional
band to maintain a differential setpoint of 90 PSI. (adjustable at an ICS terminal)

High Process Water Flow Event

In the event that the process water flow difference between the supply and the return segments of the system, as read by flow transmitters, FT-1 & FT-2, exceeds a difference of 10GPM (adjustable), the digital controller will set a High Flow Event. The system will be isolated by closing two position valve, V-5, and disabling the circulating pump, PLEU-1. The controller will also position the three way mixing valve to zero percent so that the normally closed port is closed. An alarm, "High Process Water flow" will be sent to the ICS network. The ICS will calculate a flow differential for the supply and return flow.

The Following Points Will Be Adjustable From Any ICS Terminal

-Process(DI) supply water setpoint.
-Process water differential pressure setpoint.

The Following Points Will Be Monitored And Alarmed to the ICS Network:

-Process water circulating pump status.
-Process water supply filter status.
-High process water supply temperature event.
-High process water flow rate event.

ISSUE	Drawing Title						
NUMBER A	DI Water Bridge Control Sequence of Operation For LEUTL						
DATE 06/03/98			1	As Built		06/3/98	pmw
TIME 11:26 AM	Project Title	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
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